

Application No.: 10/607,814
Amendment dated January 31, 2005
Reply to Office Action of November 2, 2004

Remarks/Arguments

Claims 1 – 15 and 27-37 are in the application. Claims 1 and 8 are in independent form. Applicants thank the Examiner for the indication of allowable subject matter in claims 2-5, 10-13, and 15.

Restriction Requirement

Applicants confirm the election of claims 1-15. Claims 16-26 drawn to a non-elected invention are cancelled.

Claim Rejections under 35 USC § 112

Claims 4, 5, 12, and 13 stand rejected as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Amended claims 4 and 12 clarify that the feature is not limited to a line.

Allowable Subject Matter

Claims 2, 3, 7, 10, 11, and 15 stand objected to for being dependent on rejected base claims, but would be allowable if rewritten in independent form including all of the limitation of the base claim and any intervening claims.

Claims 4, 5, 12, and 13 would be allowable if rewritten to overcome the rejections under 35 USC § 112 and to include all of the limitation of the base claim and any intervening claims. As described above, claims 4 and 12 are amended to overcome the rejections under 35 USC § 112.

Claim 2 is rewritten into independent form and claim 4 is rewritten to depend from claim 2. Claim 10 is rewritten into independent form and claim 12 is rewritten to depend from claim 10. Applicants submit, therefore, that claims 2-5 and claims 10-13 are allowable.

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Claim Rejections under 35 USC § 102

Claims 1, 6, 8, 9, and 14 stand rejected as anticipated by JP 54-124879. Applicants respond as follows.

Amended claim 1 recites: "said irradiation of at least a portion of the electron-source surface being performed without substantially irradiating the target surface at least until sufficient material is deposited onto the target surface to protect the target surface from irradiation damage, the area of interest in the target surface not being damaged by said irradiation." Amended claim 8 recites "irradiating at least a portion of the auxiliary electron source surface to generate secondary electrons that travel above the target surface to interact with the deposition gas to deposit a deposition layer over the target surface without substantially irradiating the target surface."

JP 54-124879 teaches that part of ion beam 6 hits the internal wall of the barrier, and that "the emitted secondary electrons and the ion beams 8 are collided to the target . . ." [Emphasis added] Thus, JP 54-124879 teaches that the ion beam impacts directly onto the target surface, as well as onto the electron-source surface. FIGS. 1 and 2 of the attached drawing from the JP 54-124879 shows that the ion beam strikes the target area, as well as the electron-source surface. Thus, JP 54-124879 teaches that the ion beam substantially irradiates the target area and does not teach the invention of amended claims 1 and 8.

Claim 1, 6, 8, and 14 stand rejected as anticipated by U.S. Pat. No. 5,639,699 to Nakamura et al. ("Nakamura"). Like JP 54-124879, Nakamura teaches that the ion beam substantially irradiates the target area, which would damage the target area.

New claims 27-31 are similar to claims 2-5 and depend from amended claim 1. Claims 32-35 are similar to claims 10-13, but depend from amended claim 8. New claim 36 is similar to

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original claim 13 and claim 37 is similar to original claim 5.

Applicant submits that all claims are now allowable and respectfully requests reconsideration and allowance of the application.

Respectfully submitted,

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